

* CONSENSUS DOCUMENT STAGE 1
PREPARATORY PHASE CRITERIA
FOR THE STATE OF
SONORA JUNE 13, 1995

UNITED STATES/MEXICO
BINATIONAL TUBERCULOSIS COMMITTEE
CANCUN, QUINTANA ROO, MEXICO
JUNE 13, 1995

CONSENSUS DOCUMENT
STAGE 1 CONTROL/PREPATORY PHASE
CRITERIA
FOR THE STATE OF SONORA

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and

COMITE DE LA CAMPAÑA DE ERRADICACION
DE LA TUBERCULOSIS BOVINA
Y BRUCELOSIS DEL ESTADO
DE SONORA

CONSENSUS DOCUMENT
STAGE 1 - CONTROL/PREPATORY PHASE

CRITERION NUMBER 1

Have a functional state animal disease committee, which includes representatives from at least three entities; Cattlemen's Union, State Government, and Federal Government (SAGAR, formerly SARH).

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The name of the animal disease committee in the State of Sonora is "Comité de la Compañía de Erradicación de la Tuberculosis Bovina y Brucelosis del Estado de Sonora" (SCC). Although the eradication program began in early 1991, the SCC was officially established by decree signed by Governor Manuel Beltrones on December 12, 1991. It was published in the Official Bulletin of the State of Sonora on December 19, 1991.

The SCC consists of the Secretary of the Sonora Department of Livestock Development (SDLD), a Delegate in Sonora for the Secretariat of Agriculture, Livestock and Rural Development (SAGAR formerly SARH), and representatives from the Sonora Cattlemen's Union, including the Union President. See appendix 1 for a complete list of SCC Members.

The Board of Directors of the SCC consists of the Secretary of the Department of Livestock Development for the State of Sonora who serves as the President, the Delegate in Sonora for the Secretariat of Agriculture, Livestock and Rural Development (SAGAR formerly SARH) who serves as the secretary, and the President of the Sonora Cattlemen's Union who serves as the treasurer, along with the Presidents of each of the eleven District (rural or county) subcommittees. See appendix 3 for a map of Sonora's Districts.

The District Presidents are cattlemen nominated by the Sonora Cattlemen's Union and appointed by the Governor to represent the interests of the local cattlemen on the SCC.

The current executive officers of the SCC are:

President:

Sr. Luis Colosio F.

Secretary of the Department of Livestock Development for the State of Sonora

Secretary:

Ing. Jorge Amaya A.

Delegate in Sonora for the Secretariat of Agriculture, Livestock and Rural Development-SAGAR (formerly SARH)

Treasurer:

C. P. Agustin Hurtado

President of the Sonora Cattlemen's Union

Ing. Salvador Campa serves as the Executive Director for the SCC. He has held this position since the inception of the program. The Executive Director is nominated by the three Executive Officers and appointed by the Governor.

The technical staff for the SCC includes a Chief Program Coordinator Veterinarian, three regional veterinary epidemiologists, District Supervisor Veterinarians, and several SAGAR veterinarians.

The mission of the SCC is to eradicate both tuberculosis and brucellosis from livestock in Sonora. The SCC is the mechanism whereby resources from the Mexican Federal Government, Sonora State Government, and Sonora Cattlemen's Union are pooled and then directed in the most effective manner in order to achieve the mission.

The SCC meets every other month to consider issues confronting the eradication program, and to review and set the goals and objectives. An emergency meeting is scheduled if an urgent issue presents itself.

The Executive Director and his technical staff present action plans for the various issues confronting the SCC. In addition, the Executive Director updates the SCC on progress in the campaign and presents any problems that have been encountered.

Decisions are made by the SCC and then referred to the Executive Director for implementation. Management of the day to day operation of the eradication program is the responsibility of the Executive Director. The Executive Director, assisted by his technical staff, works with the District Subcommittees to implement the work plans ordered by the SCC.

CONSENSUS DOCUMENT
STAGE 1 - CONTROL/PREPATORY PHASE

CRITERION NUMBER 2

Have State regulatory authority, including effective quarantine powers, to implement and enforce a TB eradication effort.

STAGE 1 - CONTROL/PREPARATORY PHASE

CRITERION NUMBER 2

Have State regulatory authority, including effective quarantine powers, to implement and enforce a TB eradication effort.

In his December 12, 1991 decree, the Governor of the State of Sonora established the Campaign Committee and the program for the eradication of tuberculosis and brucellosis. The Federal and State authorities for the eradication program are:

Mexican Federal authorities -

Ley de Salud Animal, Article 4 (Animal Health Law) - June 18, 1993 (this was an update of a 1940's Federal Law)

NOM-007-ZOO-1993 - Norma Oficial Mexicana para la Campaña Nacional de Erradicación de la Tuberculosis Bovina (NOM - the Federal standard for eradication of tuberculosis) - published in 1993

NOM-EM-011-ZOO-1994 - Norma Oficial Mexicana Campaña Nacional Contra la Brucelosis en los Animales (NOM - the Federal standard for eradication of brucellosis) - published in 1994

State authorities -

Governor's constitutional authority:

Constitución Política del Estado Libre y Soberano de Sonora, Article 79 (Sonora State Constitution) - September 15, 1917

Sonora Department of Livestock Development authority to regulate the livestock industry including conducting a brand inspection program:

Ley No. 22 de Ganadería para el Estado de Sonora, Articles 1, 2, 6, 88, 109, 115, 149 through 155, and 222 through 230 (Livestock Brand Law for the State of Sonora) - June 30, 1983

State authorities (continued) -

Sonora Department of Livestock Development authority to regulate livestock health:

Ley Orgánica del Poder Ejecutivo del Estado de Sonora, Articles 5, 9, 32, 35 and 37 (Organic Law of the State of Sonora) - December 27, 1985
(The Organic Law updated all of the state laws and redefined the authorities of all of the state agencies)

Governor's Decree establishing the Sonora tuberculosis and brucellosis eradication programs and the Campaign Committee:

Decreto que declara de Interés público la realización de la campaña de erradicación de la tuberculosis bovina y de la brucelosis del Estado de Sonora, y constituye el Comité que implementará dicha campaña - December 12, 1991

The Federal Animal Health Law of 1993 and the NOM give the power and authority for quarantine to SAGAR. Quarantines may only be established or released by officials of SAGAR.

Cooperation from the cattlemen from the outset of the eradication campaign has been excellent. One must remember that the cattlemen themselves have paid over 80% (eighty percent) of the eradication program costs. Those cattlemen that chose not to cooperate were not allowed to move their cattle. The motivation to maintain their export market and the punitive factor of not being allowed to move their cattle has resulted in the testing of nearly all of the herds in the state (98% to date). The remaining 2% (two percent) of the herds will be tested in 1995.

Inspectors from the Livestock Brand Inspection Department of the SDLD and officers from both the State and Federal Police assist the SCC in enforcing the SAGAR quarantines. SAGAR veterinarians notify the Livestock Brand Inspection Department when a quarantine is established. A transit permit issued by a Livestock Brand Inspector is required whenever cattle are moved. Once notified of the existence of a quarantine, the Livestock Brand Inspector in that District will not issue any transit permits for that herd. In addition, the inspector reports to SAGAR, the State Police, and the Campaign Committee any unauthorized movements of cattle from the quarantined herd.

CONSENSUS DOCUMENT
STAGE 1 - CONTROL/PREPATORY PHASE

CRITERION NUMBER 3

Have an agreement between the State Government, Federal Government, and the Cattlemen's Union to accept the Norma Oficial Mexicana (NOM) as the minimum standard for the state eradication program.

STAGE 1 - CONTROL/PREPATORY PHASE

CRITERION NUMBER 3

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On May 2, 1992, the Governor of Sonora, a representative of the Secretary of Agriculture, Livestock, and Rural Development (SAGAR - formerly SARH), and the President of the Sonora Cattlemen's Union signed an agreement stating that the Sonora Eradication Campaign will abide by all current and future Federal regulations pertaining to tuberculosis eradication. When the NOM was published by SAGAR in 1993, it became the standard for conducting the eradication program in Sonora.

Even before the NOM was finalized by SAGAR, Sonora utilized the eradication principles contained in the USDA U M & R. Sonora officially adopted use of the NOM as soon as it was completed. It should be noted that members of the Sonora Campaign Committee had a significant amount of input in the formulation of the NOM.

CONSENSUS DOCUMENT
STAGE 1 - CONTROL/PREPATORY PHASE

CRITERION NUMBER 4

Have a functional infrastructure of veterinary expertise and authority sufficient to schedule, conduct and interpret tuberculosis tests; conduct epidemiological investigations; conduct slaughter surveillance and postmortem exams; quarantine herds, identify infected and exposed animals, and police reactor and exposed animals to slaughter or segregation units; and apply all other aspects of the TB eradication program.

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The Executive Director, Ing. Salvador Campa, oversees the day to day operation of the eradication program for the SCC. There are thirteen veterinarians serving as the "technical group of veterinary advisors" to the SCC. A Chief Coordinator, an assistant who also serves as a regional epidemiologist, and eleven District supervisors, two of which are also regional epidemiologists.

MVZ (veterinarian) Gustavo Martinez serves as the Chief Coordinator for the state's eradication program. The program's three regional veterinary epidemiologists, two with dual roles as District Supervisors are, MVZ Martin Mazon, epidemiologist for the northern region and supervisor for the Magdalena District, MVZ Sergio Vazquez, epidemiologist for the southern region and supervisor for the Guaymas District, and MVZ Pamela Ibarra, epidemiologist for the central region and assistant to Dr. Martinez.

Two other key SAGAR veterinarians working in the Eradication Campaign and serving as technical advisors are MVZ Francisco Lopez, who serves as the General Coordinator of Animal Health Programs for SAGAR in the State of Sonora, and MVZ Jorge Canez, who is the chief veterinarian for TIF inspection in the State of Sonora.

There are approximately 98 veterinarians approved (accredited) by SAGAR to perform the routine on ranch/farm caudal fold tuberculosis testing for the eradication campaign as well as testing cattle for export. In addition, some of these veterinarians perform the slaughter surveillance inspection of cattle in the local municipal meat packing plants. In order to be accredited by SAGAR, a veterinarian must attend a SAGAR veterinary accreditation course and pass an examination. Four accreditation courses were conducted by SAGAR in Hermosillo in 1992, one in Ciudad Obregon in 1993, and one in Navajoa in 1994.

The accredited veterinarians are supervised by a District Supervisor, one located in each of the eleven Districts (see appendix 2). In addition to attending an accreditation course, these supervisory veterinarians attended a veterinary coordinator/supervisor course either in Mexico City or Ciudad Obregon in 1994. It is the District Supervisors that schedule the herd testing and monitor the work of the accredited veterinarians.

In addition to the thirteen veterinarians in the "technical advisor group" and the accredited veterinarians, there are twenty-seven other official SAGAR veterinarians, eleven of which are employed in TIF slaughter plants.

After a positive test is reported by an accredited veterinarian, a District Supervisor performs a comparative cervical test. Reactors to the comparative cervical test are reported to one of the program epidemiologists who make the decisions on the correct course of action after consulting with the State Coordinator, if necessary.

Courses of action include the implementation of a quarantine by SAGAR, ensuring that reactors are slaughtered in TIF (Federal slaughter plants) and tissues are collected by a program epidemiologist or the District supervisor for histopathological diagnosis, conducting an epidemiological investigation, determining the need for adjacent/exposed herd testing, and designing an eradication or depopulation plan for the quarantined herd.

SCC has maintained an extensive database detailing the results of tuberculosis testing on a FoxPro format. Recently, arrangements were made by Dr. Cindy Gaborick and Dr. Rick Willer to equip the SCC with a computer loaded with Oracle and TIMS software. This will allow Sonora to begin utilizing TIMS in order to track tuberculosis testing and present it in a format that is familiar to the animal health officials in the United States. MVZ Pamela Ibarra and Gloria Martinez, from the Sonora Campaign, recently completed training in Fort Collins on the use of the TIMS program.

Slaughter surveillance implementation is completed in all of the TIF (Type Inspection Federal - Slaughter facilities with Federal inspection) and all but the smallest municipal slaughter facilities in Sonora. All TIF plants are staffed by a Veterinarian-In-Charge, and depending on the size, additional veterinary meat inspectors. In addition, the TIF plants have lay meat inspectors on staff.

All animals receive a thorough post mortem inspection that includes the incision of lymph nodes in the head and mediastinum. Suspicious samples are collected in tuberculosis sample kits patterned after those used in the United States. Samples are submitted for histopathological analysis to the Sonora state Health Laboratory located in Hermosillo.

The TIF veterinarians and lay meat inspectors have been trained by Dr. Bob Meyer, Tuberculosis Epidemiologist, USDA/APHIS/VS, Western Region, to recognize tuberculosis lesions. Additional on-the-job training has been provided by MVZ Jorge Canez, chief veterinarian for TIF inspection in the State of Sonora.

Inspection services at the municipal slaughter facilities are provided by accredited veterinarians who practice in the general area of the plant. These veterinarians are the same veterinarians accredited by SAGAR to perform the routine on farm/ranch tuberculosis testing.

The following are training courses held in both Sonora and the United States since the initiation of the eradication program:

August 1992/Dr. Bob Meyer and Dr. Ray Hinshaw/Rio Rico, Arizona
TB Pathophysiology and the eradication program in the U.S.
Course included practical demonstrations on proper caudal fold testing technique

1992 through 1994/SAGAR CONETB/Sonora
Six accreditation courses

November 1993/Dr. Bob Meyer/Tucson, Arizona
Slaughter surveillance training seminar

February 1994/SAGAR CONETB/Mexico City
Training course for campaign coordinators and supervisors

July 1994/SAGAR CONETB/Cd. Obregon, Sonora
Training course for campaign coordinators and supervisors

February 1994/Dr. Bob Meyer/Hermosillo, Sonora
Slaughter surveillance training seminar

March 1994/SAGAR TIF/Hermosillo, Sonora
TB accreditation and slaughter inspection training for TIF plant veterinarians

Training courses (continued) -

September 1994/Hermosillo, Sonora
Brucellosis Diagnostic Training Course

September 1994/Dr. Bob Meyer/Hermosillo, Sonora
TB epidemiology training seminar

October 1994/Republic of Cuba Scientific Veterinarian
Council/Mexico City
Tuberculosis and brucellosis seminar

March 1995/Center for Epidemiology and Animal Health/Ft.
Collins, Colorado
Tuberculosis Information Management System (TIMS)

April 1995/National Veterinary Services Laboratory/Ames, Iowa
Tuberculosis Epidemiology Training Seminar

CONSENSUS DOCUMENT
STAGE 1 - CONTROL/PREPATORY PHASE

CRITERION NUMBER 5

Have initiated systematic,
organized, large scale area testing
and begun implementation of
effective, reliable slaughter
surveillance.

STAGE 1 - CONTROL/PREPATORY PHASE

CRITERION NUMBER 5

Have initiated systematic, organized, large scale area testing and begun implementation of effective, reliable slaughter surveillance.

Sonora initiated their tuberculosis testing early in 1991. The eradication program received official status in the December 1991 decree of the Governor that established the Campaign Committee for the elimination of tuberculosis and brucellosis. The original eradication plan called for testing all herds twice and was to begin in the northern portion of the state progressing southward. After completion of two whole herd tests, each herd was to conduct an annual test of 20% of the breeding cattle over six months of age. Herds would be quarantined as reactors were found and either depopulated or tested out of quarantine.

The current eradication plan calls for testing of all herds in the state at least once. The intermediate goal of the Campaign is to achieve status equivalent to a modified accredited state in the United States, with a long term goal of complete eradication and regionalization with Arizona, a tuberculosis free state.

Several factors contributed to the change in Sonora's eradication strategy in 1993. Perhaps one of the most important factors involved was the realization of a need for standardization of eradication efforts with other states in Mexico. The United States utilizes the Uniform Methods and Rules (U M & R) for Tuberculosis Eradication. Even before the NOM was finalized by SAGAR, Sonora utilized the eradication principles contained in the USDA U M & R. Sonora officially adopted use of the NOM as soon as it was completed.

Another factor leading to the change in strategy was the drought occurring (and still occurring) in northern Mexico. Handling herds twice for complete herd testing placed a burden on herds already hard hit by a severe drought. In addition due to a lack of sufficient veterinary manpower, it appeared to be much more efficient to utilize the technical resources available to complete a statewide test as quickly as possible.

As of this date, 98% (ninety-eight percent) of the herds in Sonora have completed at least one herd test. It is anticipated that the remainder of the herds will be tested in 1995. Nearly a third of the state's producers have also completed a second herd test.

At the outset of the Eradication Campaign, it was clear that Sonora would have to control its borders in order to prevent cattle from other parts of Sonora from moving into the state and jeopardizing the eradication program. Sonora is blessed with two geographical barriers preventing the free movement of cattle into the state. The western border is the Sea of Cortez and the eastern border with Chihuahua is nearly impenetrable due to the formidable Sierra Madre mountain range. As described in criterion number two, Sonora maintains a number of dipping/quarantine check points throughout the state, including some located strategically on the navigable roads from the bordering states of Sinaloa, Chihuahua, and Baja California Norte. Cattle that enter Sonora without the proper proof of official SAGAR tuberculosis testing are quarantined until the proper testing is completed or they are deported. If cattle are to remain in the state, they are again tested for tuberculosis sixty days after the first test. Export cattle moving from other states in Mexico to the U.S. border are monitored to ensure they arrive at their destination and not diverted to a location in Sonora.

Slaughter surveillance has been implemented in all six of the TIF plants, which represent over 40% (forty percent) of the cattle slaughtered in Sonora, and the highest volume municipal slaughter facilities in the state. Implementation of slaughter surveillance was initiated in 1994 in the slaughter plants in the northern portion of the state and has progressed south. Twenty-eight (28) of the sixty-five (65) municipal facilities slaughter less than fifty (50) head per year and do not justify a veterinarian on contract to perform antemortem and postmortem inspection. The municipal slaughter facilities with postmortem service slaughter over 98% (ninety-eight percent) of the cattle moving through municipal facilities. This is comparable to slaughter in Arizona where custom exempt (exempt from inspection providing meat is for home use) slaughter represents approximately 2% (two percent) of the cattle slaughtered in that state.

In addition, slaughter surveillance is performed on Mexican cattle exported to the United States either direct to slaughter, or to a feedlot and then to slaughter. The USDA/APHIS/VS requires that all steers and spayed heifers imported into the United States be identified with the official SAGAR blue metal eartag, and USDA/FSIS is requiring that the eartag be collected at slaughter. TB positives and the corresponding identification eartags are reported to the Campaign Committee or the technical staff for epidemiological follow-up.

CONSENSUS DOCUMENT
STAGE 1 - CONTROL/PREPATORY PHASE

CRITERION NUMBER 6

Have implemented educational aspects
of the TB eradication program within
the state.

STAGE 1 - CONTROL/PREPARATORY PHASE

CRITERION NUMBER 6

Have implemented educational aspects of the TB eradication program within the state.

The educational aspects of the Sonora Campaign Committee's eradication program were initiated in 1991. Printed information, such as posters, brochures, slides, overheads and charts, supplemented oral presentations at meetings and livestock fairs held by the local District Cattlemen's Associations. All cattlemen are welcome and free to express their opinions at the meetings of the Campaign Committee.

In addition, printed and televised media were and are still utilized. The state public radio station "Radio Sonora" broadcasts Campaign messages as needed in a regular program called "Fomento Ganadero".

Not only have the producers been educated on the need to eradicate tuberculosis, the public has also been educated about the public health significance of both tuberculosis and brucellosis.

The success of the Campaign Committee's education efforts are reflected in the producer cooperation which has allowed nearly the whole state to be tested in a little over three years.

APPENDICES

APPENDIX 1

CAMPAIGN COMMITTEE

Name	Affiliation	Address	Telephone
Sr. Luis Colosio F., President	SDLD	Edificio Sonora Sur, 2o. Piso Centro De Gobierno Hermosillo, Sonora	52-62-17-2660 52-62-17-2910 fax
Ing. Jorge Amaya A., Secretary	SAGAR	Edificio Mexico, 2o. Piso Centro De Gobierno Hermosillo, Sonora	52-62-12-0124 52-62-13-3946 fax
C. P. Agustín Hurtado, Treasurer	SCU	Periferico Oriente Union Ganadera Hermosillo, Sonora	52-62-54-0004 52-62-54-0010 fax
Ing. Salvador Campa A.	Executive Director Eradication Campaign	Blvd. Luis Encinas #399 Hermosillo, Sonora	52-62-13-9810 52-62-12-1103 fax
Sr. Raul Arrizon	SCU Caborca District	Calle 8 Entre Q y R Caborca, Sonora	52-63-72-4143
Sr. Reynaldo Corella	SCU Magdalena District	Ave. Colosio No. 36 Imuris, Sonora	52-63-26-0044
Sr. Alejandro Varela	SCU Agua Prieta District	Calle 12 Ave. 19 y 20 Agua Prieta, Sonora	52-63-38-0733 52-63-38-2394
Sr. Jacinto Salazar	SCU Ures District	García Conde No. 913 Colonia Pitic Hermosillo, Sonora	52-62-14-5159
Sr. Erasmo Durazo	SCU Moctezuma District	Conocido Granados, Sonora	52-63-43-5040
Sr. Jose Ma. Carpena	SCU Hermosillo District	Coahuila 98 Pte. Hermosillo, Sonora	52-62-13-4414
Sr. Guillermo Ocaña	SCU Mazatan District	Jaime Nuno No. 95 Colonia Pitic Hermosillo, Sonora	52-62-14-3392
Sr. Anselmo Aguayo	SCU Sahuaripa District	Dr. Alfonso Aguayo 17 Col. Los Pinos Hermosillo, Sonora	52-62-13-1020
Sr. Adolfo Vazquez	SCU Guaymas District	Calz. Garcia Lopez Apartado Postal 311 Guaymas, Sonora	52-62-22-5665
Sr. Rogelio Diaz Brown	SCU Cajeme District	Dr. Norman Borlaug No. 2075 Cd. Obregón, Sonora	52-64-16-1247
Sr. Concepcion De Acosta	SCU Navojoa District	Calle Del Rastro No. 1 Alamos, Sonora	52-64-28-0235

Key:

SDLD - State of Sonora Department of Livestock Development
 SCU - Sonora Cattlemen's Union
 SAGAR - Secretariat of Agriculture, Livestock and Rural Development (formerly SARH)

APPENDIX 2

DISTRICT VETERINARIANS

Name	District
Dr. Gustavo Martinez	Chief Coordinator
Dr. Pamela Ibarra	Central region epidemiologist
Dr. Martin Mazon	Magdalena District Northern region epidemiologist
Dr. Sergio Vazquez	Guaymas District Southern region epidemiologist
Dr. Arturo Arrizon	Caborca District
Dr. Alfredo Medinala	Agua Prieta District
Dr. Alejandro Vazquez	Ures District
Dr. Fernando Leos	Moctezuma District
Dr. Luis Navarro	Hermosillo District
Dr. Francisco Ruiz	Mazatan District
Dr. Jose Coronado	Sahuaripa District
Dr. Hector Valenzuela	Obregon District
Dr. Jesus Sanchez	Navojoa District

SONORA

11 Rural Development Districts

